

SEQUENCE LISTING

<110> Sibley, David R.
Monsma, Frederick J.
Hamblin, Mark

<120> The ST-B17 Serotonin Receptor

<130> NIH047.1CP1C1

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<151> 1995-09-18

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cagcttcctt	tctcctcctt	tgccttcacc	ctgtacctgc	agtcaccata	tcccgctcttg	420					
gtcctcaacc	cagtcctccc	atg gtt cca gag cca ggc	cct gtc aac agt agc			471					
		Met Val Pro Glu Pro Gly	Pro Val Asn Ser Ser								
		1	5	10							

acc cca gcc tgg ggt ccc ggg cca ccg cct gct ccg ggg ggc agc ggc 519
Thr Pro Ala Trp Gly Pro Gly Pro Pro Pro Ala Pro Gly Gly Ser Gly
15 20 25

tgg gtg gct gcc gcg ctg tgc gtg gtc atc gtg ctg aca gca gcc gcc 567
 Trp Val Ala Ala Ala Leu Cys Val Val Ile Val Leu Thr Ala Ala Ala
 30 35 40

aat tcg ctg ctg atc gtg ctc att tgc acg cag ccc gcc gtg cgc aac 615
Asn Ser Leu Leu Ile Val Leu Ile Cys Thr Gln Pro Ala Val Arg Asn
45 50 55

acg tct aac ttc ttt ctg gtg tcg ctc ttc acg tcg gac ttg atg gtg 663
Thr Ser Asn Phe Phe Leu Val Ser Leu Phe Thr Ser Asp Leu Met Val
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ggg ttg gtg gtg atg ccc cca gcc atg ctg aac gcg ctg tat ggg cgc 711
Gly Leu Val Val Met Pro Pro Ala Met Leu Asn Ala Leu Tyr Gly Arg

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tgg gtg tta gct cga ggc ctc tgt ctg ctt tgg act gcc ttc gac gtg				759
Trp Val Leu Ala Arg Gly Leu Cys Leu Leu Trp Thr Ala Phe Asp Val				
	95	100	105	
atg tgc tgc agc gcc tcc atc ctc aac ctc tgc ctc atc agc ctg gac				807
Met Cys Cys Ser Ala Ser Ile Leu Asn Leu Cys Leu Ile Ser Leu Asp				
	110	115	120	
cgc tac ctg ctc atc ctc tcg ccg ctg cgc tac aag ctg cgc atg aca				855
Arg Tyr Leu Leu Ile Leu Ser Pro Leu Arg Tyr Lys Leu Arg Met Thr				
	125	130	135	
gcc ccg cga gcc ctg gcg ctc atc ctg ggt gcc tgg agc ctc gcg gcg				903
Ala Pro Arg Ala Leu Ala Leu Ile Leu Gly Ala Trp Ser Leu Ala Ala				
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ctt gcc tcc ttc cta ccc ctc ttg ctg ggc tgg cac gaa ctg ggc aaa				951
Leu Ala Ser Phe Leu Pro Leu Leu Leu Gly Trp His Glu Leu Gly Lys				
	160	165	170	
gct cga aca cct gcc cct ggc cag tgc cgc cta ttg gcc agc ctg cct				999
Ala Arg Thr Pro Ala Pro Gly Gln Cys Arg Leu Leu Ala Ser Leu Pro				
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ttt gtc ctc gtg gcg tcc ggc gtc acc ttt ttc ctg cct tcg ggt gcc				1047
Phe Val Leu Val Ala Ser Gly Val Thr Phe Phe Leu Pro Ser Gly Ala				
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Ile Cys Phe Thr Tyr Cys Arg Ile Leu Leu Ala Ala Arg Lys Gln Ala				
	205	210	215	
gtg caa gtg gcc tcg ctc acc acg ggc acg gct ggc cag gcc ttg gaa				1143
Val Gln Val Ala Ser Leu Thr Thr Gly Thr Ala Gly Gln Ala Leu Glu				
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acc ttg cag gtg ccc agg aca cca cgc cca ggg atg gag tcc gct gac				1191
Thr Leu Gln Val Pro Arg Thr Pro Arg Pro Gly Met Glu Ser Ala Asp				
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Ser Arg Arg Leu Ala Thr Lys His Ser Arg Lys Ala Leu Lys Ala Ser				
	255	260	265	
ctg acc ctg ggc atc ctg ctg gga atg ttc ttt gtc acc tgg ctg ccc				1287
Leu Thr Leu Gly Ile Leu Leu Gly Met Phe Phe Val Thr Trp Leu Pro				
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Phe Phe Val Ala Asn Ile Ala Gln Ala Val Cys Asp Cys Ile Ser Pro				
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Pro Pro Ala Met Leu Asn Ala Leu Tyr Gly Arg Trp Val Leu Ala Arg
 85 90 95
 Gly Leu Cys Leu Leu Trp Thr Ala Phe Asp Val Met Cys Cys Ser Ala
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 Ser Ile Leu Asn Leu Cys Leu Ile Ser Leu Asp Arg Tyr Leu Leu Ile
 115 120 125
 Leu Ser Pro Leu Arg Tyr Lys Leu Arg Met Thr Ala Pro Arg Ala Leu
 130 135 140
 Ala Leu Ile Leu Gly Ala Trp Ser Leu Ala Ala Leu Ala Ser Phe Leu
 145 150 155 160
 Pro Leu Leu Leu Gly Trp His Glu Leu Gly Lys Ala Arg Thr Pro Ala
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 Pro Gly Gln Cys Arg Leu Leu Ala Ser Leu Pro Phe Val Leu Val Ala
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 Ser Gly Val Thr Phe Phe Leu Pro Ser Gly Ala Ile Cys Phe Thr Tyr
 195 200 205
 Cys Arg Ile Leu Leu Ala Ala Arg Lys Gln Ala Val Gln Val Ala Ser
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 Leu Thr Thr Gly Thr Ala Gly Gln Ala Leu Glu Thr Leu Gln Val Pro
 225 230 235 240
 Arg Thr Pro Arg Pro Gly Met Glu Ser Ala Asp Ser Arg Arg Leu Ala
 245 250 255
 Thr Lys His Ser Arg Lys Ala Leu Lys Ala Ser Leu Thr Leu Gly Ile
 260 265 270
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 275 280 285
 Ile Ala Gln Ala Val Cys Asp Cys Ile Ser Pro Gly Leu Phe Asp Val
 290 295 300
 Leu Thr Trp Leu Gly Tyr Cys Asn Ser Thr Met Asn Pro Ile Ile Tyr
 305 310 315 320
 Pro Leu Phe Met Arg Asp Phe Lys Arg Ala Leu Gly Arg Phe Leu His
 325 330 335
 Ala Ser Thr Val Pro Arg Ser Thr Gly Gln Pro Cys Leu Pro Leu His
 340 345 350
 Val Asp Leu Ser Gln Arg Cys Gln Thr Arg Pro Gln Leu Gln Gln Val
 355 360 365
 Leu Ala Leu Pro Leu Pro Pro Asn Ser Asp Ser Asp Ser Ala Ser Gly
 370 375 380
 Gly Thr Ser Gly Leu Gln Leu Thr Ala Gln Leu Leu Leu Pro Gly Glu
 385 390 395 400
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ctagccagga accccacccc catcttatgg catccccggg ggccctattc catcccaggg 180
ctctcatcca gcccacagct aactttcatt gactcgtcac atcagtagcc ctccccaaac 240
ttcttaccgg agtactccag gtggccctgc gtaggaggca cccctacaac tcctcccgat 300
ctcttgaaat cgctgctcga tgacctaaga acccggtttt gcccaatacta ctctaagggtg 360
cagcttcctt tctcctcctt tgccttcacc ctgtacctgc agtcaccata tcccgctcttg 420
gtcctcaacc cagtcccc atg gtt cca gag cca ggc cct gtc aac agt agc 471
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                  1                5                10
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acc cca gcc tgg ggt ccc ggg cca ccg cct gct ccg ggg ggc agc ggc 519
Thr Pro Ala Trp Gly Pro Gly Pro Pro Pro Ala Pro Gly Gly Ser Gly
                15                20                25
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tgg gtg gct gcc gcg ctg tgc gtg gtc atc gtg ctg aca gca gcc gcc 567
Trp Val Ala Ala Leu Cys Val Val Ile Val Leu Thr Ala Ala Ala
                30                35                40
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aat tcg ctg ctg atc gtg ctc att tgc acg cag ccc gcc gtg cgc aac 615
Asn Ser Leu Leu Ile Val Leu Ile Cys Thr Gln Pro Ala Val Arg Asn
                45                50                55
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acg tct aac ttc ttt ctg gtg tcg ctc ttc acg tcg gac ttg atg gtg 663
Thr Ser Asn Phe Phe Leu Val Ser Leu Phe Thr Ser Asp Leu Met Val
                60                65                70                75
```

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ggg ttg gtg gtg atg ccc cca gcc atg ctg aac gcg ctg tat ggg cgc 711
Gly Leu Val Val Met Pro Pro Ala Met Leu Asn Ala Leu Tyr Gly Arg
                80                85                90
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tgg gtg tta gct cga ggc ctc tgt ctg ctt tgg act gcc ttc gac gtg 759
Trp Val Leu Ala Arg Gly Leu Cys Leu Leu Trp Thr Ala Phe Asp Val
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atg tgc tgc agc gcc tcc atc ctc aac ctc tgc ctc atc agc ctg gac 807
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                110                115                120
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cgc tac ctg ctc atc ctc tcg ccg ctg cgc tac aag ctg cgc atg aca 855
Arg Tyr Leu Leu Ile Leu Ser Pro Leu Arg Tyr Lys Leu Arg Met Thr
                125                130                135
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Ala Pro Arg Ala Leu Ala Leu Ile Leu Gly Ala Trp Ser Leu Ala Ala
                140                145                150                155
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ctt gcc tcc ttc cta ccc ctc ttg ctg ggc tgg cac gaa ctg ggc aaa	951
Leu Ala Ser Phe Leu Pro Leu Leu Leu Gly Trp His Glu Leu Gly Lys	
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gct cga aca cct gcc cct ggc cag tgc cgc cta ttg gcc agc ctg cct	999
Ala Arg Thr Pro Ala Pro Gly Gln Cys Arg Leu Leu Ala Ser Leu Pro	
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ttt gtc ctc gtg gcg tcc ggc gtc acc ttt ttc ctg cct tcg ggt gcc	1047
Phe Val Leu Val Ala Ser Gly Val Thr Phe Phe Leu Pro Ser Gly Ala	
190 195 200	
atc tgc ttc acc tac tgc agg atc ctt ctg gct gcc cgc aag cag gcg	1095
Ile Cys Phe Thr Tyr Cys Arg Ile Leu Leu Ala Ala Arg Lys Gln Ala	
205 210 215	
gtg caa gtg gcc tcg ctc acc acg ggc acg gct gcc cag gcc ttg gaa	1143
Val Gln Val Ala Ser Leu Thr Thr Gly Thr Ala Gly Gln Ala Leu Glu	
220 225 230 235	
acc ttg cag gtg ccc agg aca cca cgc cca ggg atg gag tcc gct gac	1191
Thr Leu Gln Val Pro Arg Thr Pro Arg Pro Gly Met Glu Ser Ala Asp	
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Ser Arg Arg Leu Ala Thr Lys His Ser Arg Lys Ala Leu Lys Ala Ser	
255 260 265	
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Leu Thr Leu Gly Ile Leu Leu Gly Met Phe Phe Val Thr Trp Leu Pro	
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Phe Phe Val Ala Asn Ile Ala Gln	
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cttaggtctg accggagaga cgccatgctt cactgggcaa aggtgggagg gaggaggatg	1401
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gtccctgcct gggacatggg gtgtgatgag tcttatctcc acag gcc gtg tgt gac	1517
Ala Val Cys Asp	
295	
tgc atc tcc cca ggc ctc ttc gat gtc ctc aca tgg ctg ggg tac tgt	1565
Cys Ile Ser Pro Gly Leu Phe Asp Val Leu Thr Trp Leu Gly Tyr Cys	
300 305 310	
aat agc acc atg aac cct atc atc tac ccg ctc ttt atg cgg gac ttc	1613
Asn Ser Thr Met Asn Pro Ile Ile Tyr Pro Leu Phe Met Arg Asp Phe	
315 320 325	
aag agg gcc ctg ggc agg ttc ctg cat gcg tcc act gtc ccc cgg agc	1661
Lys Arg Ala Leu Gly Arg Phe Leu His Ala Ser Thr Val Pro Arg Ser	
330 335 340	

acc ggc cag ccc tgc ctc ccc ctc cat gtg gac ctc tca cag cgg tgc 1709
 Thr Gly Gln Pro Cys Leu Pro Leu His Val Asp Leu Ser Gln Arg Cys
 345 350 355

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 Gln Thr Arg Pro Gln Leu Gln Gln Val Leu Ala Leu Pro Leu Pro Pro
 360 365 370 375

aac tca gat tca gac tcc gct tca ggg ggc acc tcg ggc ctg cag ctc 1805
 Asn Ser Asp Ser Asp Ser Ala Ser Gly Gly Thr Ser Gly Leu Gln Leu
 380 385 390

aca gcc cag ctt ctg ctg cct gga gag gcc aca cgg gac ccc ccg cca 1853
 Thr Ala Gln Leu Leu Leu Pro Gly Glu Ala Thr Arg Asp Pro Pro Pro
 395 400 405

ccc acc agg gcc acc act gtg gtc aac ttc ttt gtc aca gac tct gtg 1901
 Pro Thr Arg Ala Thr Thr Val Val Asn Phe Phe Val Thr Asp Ser Val
 410 415 420

gag cct gag ata cgg ccg cat cca ctc agt tcc ccc gtg aac 1943
 Glu Pro Glu Ile Arg Pro His Pro Leu Ser Ser Pro Val Asn
 425 430 435

tgaccaggtc aagagctggc cattggaggc cacattcccg gagctctcag cccactctcc 2003
 ctgagactag gaggtggtag gtctcctgag agtgtgctga attgaggtat ctcagctagc 2063
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 35 40 45
 Val Leu Ile Cys Thr Gln Pro Ala Val Arg Asn Thr Ser Asn Phe Phe
 50 55 60
 Leu Val Ser Leu Phe Thr Ser Asp Leu Met Val Gly Leu Val Val Met
 65 70 75 80
 Pro Pro Ala Met Leu Asn Ala Leu Tyr Gly Arg Trp Val Leu Ala Arg
 85 90 95
 Gly Leu Cys Leu Leu Trp Thr Ala Phe Asp Val Met Cys Cys Ser Ala
 100 105 110
 Ser Ile Leu Asn Leu Cys Leu Ile Ser Leu Asp Arg Tyr Leu Leu Ile
 115 120 125
 Leu Ser Pro Leu Arg Tyr Lys Leu Arg Met Thr Ala Pro Arg Ala Leu
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caccctcggt cctc atg gtc cca gag ccg ggc cca acc gcc aat agc acc 170
               Met Val Pro Glu Pro Gly Pro Thr Ala Asn Ser Thr
                   1             5             10

ccg gcc tgg ggg gca ggc gcc cgt cgn nng ggg ggc agc ggc tgg gtg 218
Pro Ala Trp Gly Ala Gly Ala Arg Arg Xaa Gly Gly Ser Gly Trp Val
           15             20             25

gcg gcc ggc ctg tgc gtg gtc atc gcg ctg acg gcg gcg gcc aac tcg 266
Ala Ala Gly Leu Cys Val Val Ile Ala Leu Thr Ala Ala Ala Asn Ser
           30             35             40

ctg ctg atc gcg ctc atc tgc act cag ccc gcg ctg cgc aac acg tcc 314
Leu Leu Ile Ala Leu Ile Cys Thr Gln Pro Ala Leu Arg Asn Thr Ser
           45             50             55             60

aac ttc ttc ctg gtg tgc ctc ttc acg tct gac ctg atg gtc ggg ctg 362
Asn Phe Phe Leu Val Ser Leu Phe Thr Ser Asp Leu Met Val Gly Leu
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gtg gtg atg ccg ccg gcc atg ctg aac gcg ctg tac ggg cgc tgg gtg 410
Val Val Met Pro Pro Ala Met Leu Asn Ala Leu Tyr Gly Arg Trp Val
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ctg gcg cgc ggc ctc tgc ctg ctc tgg acc gcc ttc gac gtg atg tgc 458
Leu Ala Arg Gly Leu Cys Leu Leu Trp Thr Ala Phe Asp Val Met Cys
           95             100             105

tgc agc gcc tcc atc ctc aac ctc tgc ctc atc agc ctg gac cgc tac 506
Cys Ser Ala Ser Ile Leu Asn Leu Cys Leu Ile Ser Leu Asp Arg Tyr
           110             115             120

ctg ctc atc ctc tgc ccg ctg cgc tac aag ctg cgc atg acg ccc ctg 554
Leu Leu Ile Leu Ser Pro Leu Arg Tyr Lys Leu Arg Met Thr Pro Leu
           125             130             135             140

cgt gcc ctg gcc cta gtc ctg ggc ggc tgg agc ctc gcc gct ctc gcc 602
Arg Ala Leu Ala Leu Val Leu Gly Gly Trp Ser Leu Ala Ala Leu Ala
           145             150             155

tcc ttc ctg ccc ctg ctg ctg ggc tgg cac gag ctg ggc cac gca cgg 650
Ser Phe Leu Pro Leu Leu Leu Gly Trp His Glu Leu Gly His Ala Arg
           160             165             170

cca ccc gtc cct ggc cag tgc cgc ctg ctg gcc agc ctg cct ttt gtc 698
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Phe Thr Tyr Cys Arg Ile Leu Leu Ala Ala Arg Lys Gln Ala Val Gln	
205 210 215 220	
gtg gcc tcc ctc acc acc ggc atg gcc agt cag gcc tcg gag acg ctg	842
Val Ala Ser Leu Thr Thr Gly Met Ala Ser Gln Ala Ser Glu Thr Leu	
225 230 235	
cag gta ccc agg agc cca gcg gca ggg gtg gag tct gct gac agc agg	890
Gln Val Pro Arg Ser Pro Ala Ala Gly Val Glu Ser Ala Asp Ser Arg	
240 245 250	
cgt cta gca acg aag agc agc agg aag ggc ctg aag gcc agc atg acg	938
Arg Leu Ala Thr Lys Ser Ser Arg Lys Gly Leu Lys Ala Ser Met Thr	
255 260 265	
ctg ggc atc ctg ctg ggc atg ttc ttt gtg acc tgg ttg ccc ttc ttt	986
Leu Gly Ile Leu Leu Gly Met Phe Phe Val Thr Trp Leu Pro Phe Phe	
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Val Ala Asn Ile Val Gln Ala Val Cys Asp Cys Ile Ser Pro Gly Leu	
285 290 295 300	
ttc gat gtc ctc aca tgg ctg ggt tac tgt aac agc acc atg aac ccc	1082
Phe Asp Val Leu Thr Trp Leu Gly Tyr Cys Asn Ser Thr Met Asn Pro	
305 310 315	
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Ile Ile Tyr Pro Leu Phe Met Leu Asp Phe Lys Arg Ala Leu Gly Arg	
320 325 330	
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Phe Leu Pro Cys Pro Arg Cys Pro Arg Glu Pro Arg Pro Ala Trp Pro	
335 340 345	
cgc cat cac tgc gca cct ctc aca gcg gcc ccc ggc ccg gcc tta gcc	1226
Arg His His Cys Ala Pro Leu Thr Ala Ala Pro Gly Pro Ala Leu Ala	
350 355 360	
tac agc agg tgc tgc cgc tgc ccc tgc cgc cgg act cag att cgg act	1274
Tyr Ser Arg Cys Cys Arg Cys Pro Cys Arg Arg Thr Gln Ile Arg Thr	
365 370 375 380	
cag acg cag gct cag gcg gct cct cgg gcg tgc ggc tca cgg ccc agc	1322
Gln Thr Gln Ala Gln Ala Ala Pro Arg Ala Cys Gly Ser Arg Pro Ser	
385 390 395	
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- 12 -

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Lys	Ser	Ser	Arg	Lys	Gly	Leu	Lys	Ala	Ser	Met	Thr	Leu	Gly	Ile	Leu
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Leu	Gly	Met	Phe	Phe	Val	Thr	Trp	Leu	Pro	Phe	Phe	Val	Ala	Asn	Ile
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		290		295		300									
Thr	Trp	Leu	Gly	Tyr	Cys	Asn	Ser	Thr	Met	Asn	Pro	Ile	Ile	Tyr	Pro
305				310		315									320
Leu	Phe	Met	Leu	Asp	Phe	Lys	Arg	Ala	Leu	Gly	Arg	Phe	Leu	Pro	Cys
		325		330		335									
Pro	Arg	Cys	Pro	Arg	Glu	Pro	Arg	Pro	Ala	Trp	Pro	Arg	His	His	Cys
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Ala	Pro	Leu	Thr	Ala	Ala	Pro	Gly	Pro	Ala	Leu	Ala	Tyr	Ser	Arg	Cys
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Cys	Arg	Cys	Pro	Cys	Arg	Arg	Thr	Gln	Ile	Arg	Thr	Gln	Thr	Gln	Ala
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Gln	Ala	Ala	Pro	Arg	Ala	Cys	Gly	Ser	Arg	Pro	Ser	Cys	Cys	Phe	Leu
385				390		395									400
Ala	Arg	Pro	Pro	Arg	Thr	Pro	Arg	Cys	Pro	Pro	Gly	Pro	Leu	Pro	Pro
		405		410		415									
Ser	Ile	Ser	Ser	Thr	Ser	Xaa	Pro	Ala	Glu	Pro	Glu	Leu	Arg	Pro	His
		420		425		430									
Pro	Leu	Gly	Ile	Pro	Thr	Asn									
		435													